This listing of claims will replace all prior versions, and listings, of claims in

the application:

Listing of Claims:

1. (Currently amended) A method for adapting to changes affecting a

wireless signal comprising:

instantaneously detecting a movement motion of a communication device

communicating the wireless signal or instantaneously detecting a movement motion

of an external object in a signal path based on a measurement of a metric of a

modulated signal attribute comprised of at least one of amplitude of the wireless

signal, frequency of the wireless signal, or phase of the wireless signal;

selecting a parameter adjustment, based on the instantaneously detected

movement motion, of at least one of: an antenna mode, a power level, a forward

error correction (FEC) coding rate, a number of modulation symbols, and a data

transfer rate: and

performing the parameter adjustment.

(Previously Presented) The method as in claim 1, wherein the 2.

detecting is performed by a mobile station.

3. and 4. (Canceled).

5. (Previously Presented) The method as in claim 1, wherein the

detecting is based on a signal in an automatic gain control (AGC) loop.

6. (Previously Presented) The method as in claim 5, wherein the

detecting is a function of a statistic of the signal in the AGC loop.

7. (Previously Presented) The method as in claim 6, wherein the

statistic that is used is variance.

8. (Previously Presented) The method as in claim 1, wherein the

detecting is based on a phase error signal produced by at least one of a delay lock

loop, matched filter, or correlator.

9. (Previously Presented) The method as in claim 8, wherein the

detecting is a function of a statistic of the phase error signal.

10. (Previously Presented) The method as in claim 9, wherein the

statistic that is used is variance.

11. (Previously Presented) The method as in claim 1, wherein the

metric is based on a frequency error signal in a frequency control loop.

12. (Previously Presented) The method as in claim 11, wherein the

detecting is a function of a statistic of the frequency error signal.

13. (Previously Presented) The method as in claim 12, wherein the

statistic that is used is variance.

14. (Previously Presented) The method as in claim 1, wherein the

detecting includes: comparing the metric to a threshold level.

(Canceled).

16. (Previously Presented) The method as in claim 1, wherein the

selecting the parameter adjustment includes selecting the antenna mode, which

comprises changing from directive to omni-directional.

(Previously Presented) The method as in claim 1, wherein the selecting the parameter adjustment includes selecting the antenna mode, which comprises changing from omni-directional to directive.

18. (Canceled).

19. (Previously Presented) The method as in claim 1, wherein the selecting the parameter adjustment includes selecting to reduce at least one of the FEC coding rate, or the number of modulation symbols, to a minimum level while maintaining the signal path.

20. (Canceled).

(Currently amended) An apparatus for adapting to changes 21. affecting a wireless signal, comprising:

a processing unit configured to instantaneously detect a movement motion of a communication device communicating the wireless signal or instantaneously detect a movement motion of an external object in a signal path based on a measurement of a metric of a modulated signal attribute comprised of at least one - 5 -

of amplitude of the wireless signal, frequency of the wireless signal, or phase of the

wireless signal; and

a compensator configured to make a signaling parameter adjustment,

responsive to the movement motion instantaneously detected by the processing

unit, of at lease one of an antenna mode, a forward error correction (FEC) coding

rate, a number of modulation symbols, and a data transfer rate.

22. (Previously Presented) The apparatus as in claim 21, configured as

a mobile station.

23. and 24. (Canceled).

25. (Previously presented) The apparatus as in claim 21, wherein the

processing unit is configured to detect motion based on a signal in an automatic

gain control (AGC) loop.

26. (Previously Presented) The apparatus as in claim 25, wherein the

processing unit is configured to detect motion as a function of a statistic of the

signal in the AGC loop.

- 6 -

27. (Previously Presented) The apparatus as in claim 26, wherein the

processing unit is configured to use variance as the statistic.

28. (Previously Presented) The apparatus as in claim 21, wherein the

processing unit is configured to detect motion based on a phase error signal

produced by at least one of a delay lock loop, a matched filter, or a correlator.

29. (Previously Presented) The apparatus as in claim 28, wherein the

processing unit is configured to detect motion as a function of a statistic of the

phase error signal.

30. (Previously Presented) The apparatus as in claim 29, wherein the

processing unit is configured to use variance as the statistic.

31. (Previously Presented) The apparatus as in claim 21, wherein the

processing unit is configured to detect motion based on a frequency error signal in a

frequency control loop.

32. (Previously Presented) The apparatus as in claim 31, wherein the

processing unit is configured to detect motion as a function of a statistic of the

frequency error signal.

33. (Previously Presented) The apparatus as in claim 32, wherein the

processing unit is configured to use variance as the statistic.

34. (Previously Presented) The apparatus as in claim 21, wherein the

processing unit is configured to detect motion using a comparison threshold level.

35. (Previously Presented) The apparatus as in claim 21, further

comprising:

an antenna having a changeable antenna mode, wherein the compensator is

configured to change the antenna mode.

36. (Previously Presented) The apparatus as in claim 35, wherein the

compensator is configured to change the antenna mode between directive and omni-

directional modes.

37. and 38. (Canceled).

- 8 -

Applicant: James A. Proctor, Jr.

Application No.: 09/772,176

39. (Previously Presented) The apparatus as in claim 21, wherein the

compensator is configured to reduce at least one of the FEC coding rate, or the

number of modulation symbols, to a minimum level while maintaining the signal

path.

40, and 41. (Canceled).

42. (Currently amended) A non-transitory computer-readable storage

medium containing a set of instructions for a general purpose computer, the set of

instructions comprising:

a signal adaptation code segment configured to cause a processor to control a

signaling path to adapt to changes affecting the signaling path,

a detection code segment configured to $\underline{\text{instantaneously}}$ detect a $\underline{\text{movement}}$

motion of a communication device communicating the wireless signal or

instantaneously detect motion of an external object in a signal path based on a

measurement of a metric of a modulated signal attribute comprised of at least one

of amplitude of the wireless signal, frequency of the wireless signal, or phase of the

wireless signal; and

- 9 -

an adjusting code segment configured to make a signaling parameter adjustment, responsive to the movement motion detected by the detecting code segment, of at lease one of an antenna mode, a forward error correction (FEC) coding rate, a number of modulation symbols, and a data transfer rate.